

Atty. Dkt. No. 064189-0201 (2924)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:

Heinz-Josef LENZ, et al.

Title:

GENOMIC POLYMORPHISM

FOR PREDICTING

THERAPEUTIC RESPONSE

Appl. No.:

09/715,764

Filing Date: 11/15/2000

Examiner:

Sitton, Jehanne Souaya

Art Unit:

1634

CERTIFICATE OF MAILING I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as First Class Mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date below.

TRANSMITTAL

Mail Stop Amendment Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

Transmitted herewith are the following documents for filing in the above-referenced application:

- Supplemental Information Disclosure Statement (2 pgs.); 1.
- 2. PTO Form SB/08 (2 pgs.);
- 3. Twenty (20) references as cited on SB/08 (#4-#23);
- 4. Return postcard
- [X] Check number 1585 in the amount of \$180.00 is enclosed.
- [X] The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 50-0872. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise

improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 50-0872. If any extensions of time are needed for timely acceptance of papers submitted herewith, applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 50-0872.

Please direct all correspondence to the undersigned attorney or agent at the address indicated below.

Respectfully submitted,

Date March 3, 2006

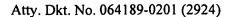
FOLEY & LARDNER LLP Customer Number: 38706

Telephone: Facsimile:

(650) 251-1129 (650) 856-3710 Antoinette F. Konski Attorney for Applicant

Registration No. 34,202

By Contracte Tronolis





IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Heinz-Josef LENZ, et al.

Title: GENOMIC POLYMORPHISM FOR

PREDICTING THERAPEUTIC

RESPONSE

Appl. No.: 09/715,764

Filing Date: 11/15/2000

Examiner: Sitton, Jehanne Souaya

Art Unit: 1634

CERTIFICATE OF MAILING I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as First Class Mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date below. S. Salto (Printed Name) (Signature) (Signature) (Date of Deposit)

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR §1.56

Mail Stop Amendment Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

Submitted herewith on Form PTO/SB/08 is a listing of documents known to Applicants in order to comply with Applicants' duty of disclosure pursuant to 37 CFR §1.56.

A copy of each non-U.S. patent document and each non-patent document is being submitted to comply with the provisions of 37 CFR §1.97 and §1.98.

The submission of any document herewith, which is not a statutory bar, is not intended as an admission that such document constitutes prior art against the claims of the present application or that such document is considered material to patentability as defined in 37 CFR §1.56(b). Applicants do not waive any rights to take any action which would be appropriate to antedate or otherwise remove as a competent reference any document which is determined to be a *prima facie* art reference against the claims of the present application.

03/08/2006 WABDELR1 00000008 09715764

01 FC:1806

180.00 OP

TIMING OF THE DISCLOSURE

The listed documents are being submitted in compliance with 37 CFR §1.97(c), before the mailing date of either a final action under 37 CFR §1.113, a notice of allowance under 37 CFR §1.311, or an action that otherwise closes prosecution in the application.

RELEVANCE OF EACH DOCUMENT

All of the documents are in English.

Applicants respectfully request that each listed document be considered by the Examiner and be made of record in the present application and that an initialed copy of Form PTO/SB/08 be returned in accordance with MPEP §609.

<u>FEE</u>

A fee in connection with submission of a supplemental information disclosure statement under 37 CFR §1.97(c) in the amount of \$180.00 in accordance with 37 CFR §1.17(p) is attached.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 CFR §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 50-0872. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 50-0872.

Respectfully submitted,

Date March 3, 2006

FOLEY & LARDNER LLP Customer Number: 38706 Telephone: (650) 251-11

Facsimile:

(650) 251-1129

(650) 856-3710

Antoinette F. Konski Attorney for Applicant Registration No. 34,202

TKorolei

MAR 0 6 2006

Sheet

MODIFIED PTO/SB/08 (08-00)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE k Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control

Under the Paper of k Reduction Act of 1995, no per comber.

Substitute for form 1449B/PTO

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

Date Submitted: March 3, 2006

(use as many sheets as necessary)

1 of 3

Complete if Known				
Application Number	09/715,764			
Filing Date	11/15/2000			
First Named Inventor	Heinz-Josef LENZ			
Group Art Unit	1634			
Examiner Name	Sitton, Jehanne Souaya			
Attorney Docket Number	064189-0201 (2924)			

U.S. PATENT DOCUMENTS							
F	0:1-	U.S. Patent Document		N	Date of Publication of	Pages, Columns, Lines, Where Relevant	
Examiner Initials*	Cite No. ¹	Number	Kind Code ² (if known)	Name of Patentee or Applicant of Cited Document	Cited Document MM-DD-YYYY	Passages or Relevant Figures Appear	
	1	5,705,336		Reed, et al.	01-06-1998		
	2	6,716,581	B2	Lenz et al.	04-06-2004		
	3	2004/0067519	A1	Lenz et al.	04-08-2004		
						· · · · · · · · · · · · · · · · · · ·	
	_						
	. –						
						*	
•							
-							

U.S. PATENT APPLICATION DOCUMENTS							
Examiner	Cite	U.S. Patent Ap	•	Name of Patentee or Applicant of	Filing Date of	Pages, Columns, Lines, Where Relevant	
Initials*	No.1	Serial Number	Kind Code ² (if known)	Cited Document	Cited Document MM-DD-YYYY	Passages or Relevant Figures Appear	

FOREIGN PATENT DOCUMENTS									
Examiner Initials*	Cite No.1	Foreign Patent Document Office ³ Number ⁴ Kind Code ⁵ (if known)	Name of Patentee or Applicant of Cited Documents	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T€			
	4	WO 01/36686	University of Southern California	05-25-2001					

_			
	Examiner Signature	Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

¹ Unique citation designation number. ²See attached Kinds of U.S. Patent Documents. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

MODIFIED PTO/SB/08 (08-00)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Papervick Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control

number. Substitute for form 1449B/PTO Complete if Known INFORMATION DISCLOSURE **Application Number** 09/715,764 STATEMENT BY APPLICANT **Filing Date** 11/15/2000 **First Named Inventor** Heinz-Josef LENZ Date Submitted: March 3, 2006 Group Art Unit 1634 (use as many sheets as necessary) **Examiner Name** Sitton, Jehanne Souaya 2 3 Attorney Docket Number Sheet 064189-0201 (2924)

			FOREIGN PATENT DOCUMEN	NTS		
Examiner Initials*	Cite No. ¹	Foreign Patent Document Office ³ Number ⁴ Kind Code (if known)	Name of Patentee or Applicant of Cited Documents	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
	5	WO 01/75175	University of Southern California	10-11-2001		
	6	WO 2004/011625	University of Southern California	02-05-2004		
	7	WO 2004/037852 A	2 University of Medicine and Dentistry of New Jersey	05/04/2004		
	8	WO 2004/037852 A	3 University of Medicine and Dentistry of New Jersey	05/04/2004		
	·	ŀ				

, and the second		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ⁶
•	9	ELDER et al. "Thymidylate synthase expression: an independent prognostic factor for local recurrence, distant metastasis, disease-free and overall survival in rectal cancer" Clinical Cancer Res. April 2000, Vol. 6, pages 1378-1384.	
	10	Fox et al. "Angiogenesis in normal tissue adjacent to colon cancer" <i>Journal of Surgical Oncology</i> (Dec. 1998) 69(4):230-234	
	11 .	IACOPETTA et al. "A polymorphism in the enhancer region of the thymidylate synthase promoter influences the survival of colorectal cancer patients treated with 5-fluorouracil" Brit. J. Cancer Sept. 2001, Vol. 85, No. 6, pages 827-830.	
	12	ISHIKAWA et al. "Dihydropyrimidien dehydorgenase activity and messenger RNA level may be related to the antitumor effect of 5-flurouracil on human tumor xenografts in nude mice" Clin. Cancer Res., April 1999, Vol. 5, pages 883-889.	
	13	Kuniyasu et al. "Induction of angiogenesis by hyperplastic colonic mucosa adjacent to colon cancer" American Journal of Pathology (Nov. 2000) 1575):1523-1535	
	14	LENZ et al. "A 6 base-pair deletion in the 3' UTR of the thymidylate synthase (TS) gene predicts TS mRNA expression in colorectal tumors: a possible candidate gene for colorectal cancer risk" PNAS, March 2002, Vol. 43, page 660 (abstract only).	
	15	Liotta et al. "The microenvironment of the tumour-host interface" Nature (May 2001) 411(6835):375-379	

	,		
Examiner		Date	
Signature		Considered	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

MAR 0 6 2006

¹ Unique citation designation number. ²See attached Kinds of U.S. Patent Documents. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁹Applicant is to place a check mark here if English language Translation is attached.

MODIFIED PTO/SB/08 (08-00)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control described.

THE PARTY OF THE P	Substitute for form	1449B	PTO		Complete if Known		
	INFORMATION DI	SCLO	SURE	Application Number	09/715,764	-	
	STATEMENT BY	APPLI	CANT	Filing Date	11/15/2000		
	Date Submitted: M	arah 2	2006	First Named Inventor	Heinz-Josef LENZ		
	Date Submitted. Wi	aicii 3	, 2000	Group Art Unit	1634		
	(use as many sheets	as ne	cessary)	Examiner Name	Sitton, Jehanne Souaya		
Sheet	3	of _	3	Attorney Docket Number	064189-0201 (2924)		

NON PATENT LITERATURE DOCUMENTS							
Examiner Initials*	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ⁶				
	16	PARK et al. "Thymidylate synthase gene polymorphism predicts response to capecitabine in advance colorectal cancer" Int. J. Colorectal Dis., Jan. 2002, Vol. 17, No. 1, pages 46-49.					
	17	PULLARKAT et al. "Thymidylate synthase gene polymorphism determines response and toxicity of 5-FU chemotherapy" Pharmacogenomics J., 2001, Vol. 1, No. 1, pages 65-70.					
	18	SALONGA et al. "Colorectal tumors responding to 5-fluorouracil have low gene expression levels of dihycropyrimidien dehydrogenase, thymidylate synthase, and thymidine phosphorylase" Clin. Cancer Res., April 2000, Vol. 6, pages 1322-1327.					
	19	SHIROTA et al. "ERCC1 and thymidylate synthase mRNA levels predict survival for colorectal cancer patients receiving combination oxaliplatin and fluorouracil chemotherapy" J. Clin. Oncol., Dec. 2001, Vol. 19, No. 23, pages 4298-4304.					
	20	ULRICH et al. "Searching expressed sequence tag databases: discovery and confirmation of a common polymorphism in the thymidylate synthase gene" Cancer Epidem., Biomarkers and Prevention, American Assoc. Cancer Res., Dec. 2000, Vol. 9, No. 12, pages 1381-1385.					
•	21	VILLAFRANCA et al. "Polymorphisms of the repeated sequences in the enhancer region of the thymidylate synthase gene promoter may predict downstaging after preoperative chemoradiation in rectal cancer" J. Clin. Oncol., March 2001, Vol. 19, No. 6, pages 1779-1786.					
•	22	EP 03772163.6 Search Report dated 10/24/2005					
	23	EP 03772163.6 Search Report dated 02/03/2006					

	 ,	
Examiner	Date	l '
Signature	Considered	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

¹ Unique citation designation number. ²See attached Kinds of U.S. Patent Documents. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.